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Applicant has amended the claims to more particular point out and distinctly claim the subject matter of the present application and Applicant respectfully submits that none of the amendments to the claims constitute new matter.

The Examiner has rejected claims 1-6 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it most nearly connected, to make and/or use the invention. The Examiner states that the specification and drawings fail to make clear the exact nature of the claimed "group of auxiliary fine pores for suppressing vibration of the substrate body when the substrate body is rotated at a high speed." Applicant respectfully submits that one of ordinary skill in the art would understand that the auxiliary fine pores apply air or gas causing a low pressure area around the substrate to suppress vibrations of the rotating substrate. Therefore, the auxiliary fine pores would suppress the vibration of the substrate body when the substrate body is rotated at a high speed. Applicant respectfully requests the Examiner to withdraw the 112, first paragraph, rejection to claims 1-6.

The Examiner has rejected claims 1-9 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant

regards as the invention. Applicant respectfully submits that the claims have been amended to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention and therefore, Applicant respectfully requests the Examiner to withdraw the 112, second paragraph, rejection to the claims.

The Examiner has rejected claims 8 and/or 9 under 102/103 over each of the Amada reference (USPN 4,593,168) and the Maruyama reference (USPN 6,001,175). Claim 8 as amended recites a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body. The '168 and '175 references do not describe or show a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body and therefore, claim 8 as amended is not anticipated by either of the references. Furthermore, neither of the references teach or suggest the limitation of a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body and therefore, claim 8 as amended is not obvious over either of the references. Claim 8 as amended is an allowable independent claim and claim 9 is directly dependent on independent claim 8, therefore, dependent claim 9 is patentably distinguishable over the references for at least the same reason. Applicant

respectfully requests the Examiner to withdraw 102/103 rejection to claims 8 and 9.

The Examiner has rejected claim 8 as anticipated by or, in the alternative, as obvious over Bhat (USPN 5,226,383). Furthermore, the Examiner has rejected claim 9 under 35 U.S.C. 103(a) as being unpatentable over the Bhat '383 reference taken in view of Nishitani (USPN 4,979,466), White (USPN 5,174,825) and Foster (USPN 5,273,588). Claim 8 as amended recites a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body. The '383 reference does not describe or show a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body. Therefore, claim 8 as amended is not anticipated by the '383 reference. Furthermore, the '383 reference in combination with the other references cited by the Examiner do not teach or suggest the limitation of a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body and therefore, Claim 8 as amended is not obvious over the '383 reference or the '383 reference in combination with the other cited references. Claim 8 as amended is an allowable independent claim and claim 9 is directly dependent on independent claim 8, therefore, dependent claim 9 is patentably distinguishable over each of the references, as well

as, the combination of references as described by the Examiner. Applicant respectfully requests the Examiner to withdraw the rejections to the claims.

The Examiner has rejected claims 1-7 under 102 and/or 103 over the Hiura reference (JP 59-215718). Claim 1 as amended recites one or more auxiliary fine ports for suppressing vibration of the substrate body when the substrate body is rotated at a high speed. The '718 reference does not describe or show one or more auxiliary fine ports for suppressing vibration of the substrate body when the substrate body is rotated at a high speed. The Examiner states that the '718 reference does not disclose that the '718 reference's substrate vibrates during rotation and there is no other indication the substrate vibrates so it is reasonable and proper to assume that the gas distribution holes do not inherently cause any excessive vibration. Applicant respectfully disagrees with the Examiner's assertion that the substrate in the '718 reference does not excessively vibrate. Any time a substrate body rotates, the substrate will vibrate. Without a device to suppress the vibration of the substrate body, the vibration can be excessive. Excessive vibration to the substrate body can cause an inconsistent film to be applied to the substrate. Therefore, the Examiner's assertion and assumption are inaccurate and the substrate body in the '718 quite possibly does excessively

vibrate. Since the '718 reference does not describe or show one or more auxiliary fine pores for suppressing vibration of the substrate body when the substrate body is rotated at a high speed, claim 1 as amended of the present application is not anticipated.

Furthermore, since the '718 reference does not teach or suggest the limitation of one or more auxiliary fine ports for suppressing vibration of the substrate body when the substrate body is rotated at a high speed, Claim 1 as amended is not obvious over the '718 reference. Claims 2-6 are either directly or indirectly dependent on independent claim 1, therefore, the dependent claims are patentably distinguishable over the '718 reference for at least the same reason.

Also, amended claim 7 recites a floating means for applying air to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body. The '718 reference does not show or describe a floating means for applying air to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body and therefore, claim 7 as amended is not anticipated by the '718 reference. Furthermore, since the '718 reference does not teach or suggest the limitation of a floating means for applying air to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body. Therefore, claim 7 as amended is not obvious over the '718

reference. Applicant respectfully requests the Examiner to withdraw the rejection to claims 1-7.

The Examiner has rejected claim 1-7 under 35 U.S.C. 102 and/or 103 over the Aschner (USPN 6,005,226) reference. Applicant respectfully submits that claims 1-7 of the present application are not anticipated or obvious over the '226 reference for at least the same reasons as claims 1-7 not being anticipated or obvious over the '718 reference as described above. Therefore, Applicant respectfully requests the Examiner to withdraw the rejection to claims 1-7.

Applicant respectfully requests the Examiner to withdraw the rejections to the claims and forward a Notice of Allowability to the undersigned.

If the Examiner has any questions or comments that would speed prosecution of this case, the Examiner is invited to call the undersigned at 260/485-6001.

Respectfully submitted,

Vincent P. Merz, Jr.

Vincent P. Merz, Jr.
Registration No. 45,722

VPM

Encs: Substitute Specification
Substitute Drawings
Marked-Up Claims
Replacement Claims
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Vincent P. Merz, Jr., Regis. No. 45,722
Name of Registered Representative

Vincent P. Merz, Jr.
Signature

May 7, 2002
Date

RANDALL J. KNUTH, P.C.
3510-A Stellhorn Road
Fort Wayne, IN 46815-4631
Telephone: 260/485-6001
Facsimile: 260/486-2794

MARKED-UP CLAIMS

WHAT IS CLAIMED IS:

Please amend claim 1 as follows:

1. A substrate body-floating apparatus for blowing an air flow onto a rear surface of a disk-shaped substrate body to float and rotate the substrate body [comprising a floating unit; wherein said floating unit comprises a group of fine pores for floating the substrate body, a group of fine pores for centering and fixing the substrate body at a center of the apparatus, a group of fine pores for rotating the substrate body at a center of the apparatus, and a group of auxiliary fine pores for suppressing vibration of the substrate body when the substrate body is rotated at a high speed] comprising:

a floating unit having a surface with one or more fine pores for floating the substrate body, one or more fine pores for centering the substrate body at a center of a substrate body-floating apparatus, one or more fine pores for rotating the substrate body at a center of said apparatus, and one or more auxiliary fine pores for suppressing vibration of the substrate body when the substrate body is rotated at a high speed.

Please amend claim 2 as follows:

2. The substrate body-floating apparatus according to claim [1; wherein fine pores constituting the group of fine pores are provided on a surface of the floating unit,

are inclined against a surface of the floating apparatus,

and an air flow is injected from the fine pores in a

direction of the inclination.] 1 wherein all of said fine pores are provided on a surface of said floating unit and are inclined against the surface of said floating unit, wherein an air flow is injected into all of the fine pores in a direction of the inclination.

Please amend claim 3 as follows:

3. The substrate body-floating apparatus according to claim [2; wherein the group of fine pores for floating are provided on a surface of the floating unit, and assuming that the fine pore crosses a rotation axis of the substrate body is an origin ad a surface of the floating unit is divided to four areas by an angular space of 90 degrees, files provided in one area are parallel to the diagonal line and are oriented to a center of the floating unit.] 2 wherein said one or more fine pores for floating the substrate body crosses a rotation axis of the substrate body, and a surface of said floating unit is divided into four areas by an angular space of 90 degrees, said one or more said fine pores for floating are provided in one area that is parallel to a diagonal line of each area and oriented to a center of said floating unit.

Please amend claim 4 as follows:

4. The substrate body-floating apparatus according to claim [2; wherein the group of fire pores for centering are provided on a surface of the floating unit, the fire pores are located at positions on an outer periphery of the substrate body or in the

outer side from the periphery at an appropriate angular space alternatively, and the fine pores are oriented to a center of the floating unit.] 2 wherein said one or more fine pores for centering are located at positions on an outer periphery of the substrate body, or on an outer side from the outer periphery at an angular space, and said one or more fine pores for centering are oriented to a center of said floating unit.

Please amend claim 5 as follows:

5. The substrate body-floating apparatus according to claim [2; wherein the group of fine pores for rotation are provided on a surface of the floating unit, and the fire pores are located at portions away by an appropriate distance from a tangential line to a circle with a radius smaller to that of the substrate body drawn from a center of a surface of the floating unit and also the fine are oriented in the tangential direction in opposite directions alternatively.] 2 wherein said one or more fine pores for rotating are located at positions away from a tangential line to a circle with a radius smaller than the radius of the substrate body around a center of a surface of said floating unit, and said one or more fine pores for rotating are oriented in an opposite tangential direction.

Please amend claim 6 as follows:

6. The substrate body-floating apparatus according to claim [2; wherein the group of auxiliary fine pores is provided on a surface of the floating unit, the fine pores are oriented to a

center of the floating unit and located on a periphery of a circle in the outer side than the fire pores for rotation from a center of the floating unit at an angular space of 90 degrees therebetween.] 2 where said one or more auxiliary fine pores are oriented to a center of said floating unit and located on a periphery of a circle from the position of said one or more fine pores for rotating from a center of said floating unit at an angular space of 90 degrees therebetween.

Please amend claim 7 as follows:

7. A substrate body-floating type of heater [having the substrate body-floating apparatus;] comprising: [wherein an air flow is blown to a rear surface of the substrate body to float and rotate the substrate body and a surface of the substrate body is heated by an optical heater.]

a floating means for applying air to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body; and

an optical lamp for heating a surface of the substrate body.

Please amend claim 8 as follows:

8. A substrate body-floating type of [film-heating] film-forming apparatus [having the substrate body-floating apparatus; wherein an air flow is blown onto a rear surface of the substrate body to float and rotate the substrate body under the atmospheric pressured or under depressurized conditions for forming a film of

deposited material on a surface of the substrate body.]

comprising:

a floating means for applying gas to a rear surface of a substrate body to float, rotate and suppress vibration to the substrate body under atmospheric or under depressurized conditions for forming a film of deposited material on a surface of the substrate body.

Please amend claim 9 as follows:

9. The substrate body-floating type of film-forming apparatus according to claim [8; wherein an internal diameter of a nozzle for blowing gas for film formation onto a surface of the substrate body and an external diameter of the substrate body are set to the substantially same values and a clearance between a tip of the nozzle for blowing the gas and a surface of the substrate body is set to 2 mm or below.] 8 where an internal diameter of a nozzle for blowing gas for film formation onto a surface of the substrate body and an external diameter of the substrate body are set to substantially the same values and a clearance between a tip of the nozzle for blowing the gas and a surface of the substrate body is set to 2 mm or less.